

Application No. 10/648,967

April 4, 2006

Amendment responsive to Office Action of January 4, 2006

Remarks

Pending Claims 1-2, 8-11, and 17-19 stand rejected by the Examiner under 35 U.S.C. §102(b) as anticipated by *Wells* (US 5,754,817) while pending Claims 3-7, 12-16 and 20 stand rejected by the Examiner under 35 U.S.C. §103(a) as unpatentable over *Wells*.

In response to the Office action, Applicant has amended claim 1, 4, 5, 7, 10, 13, 14, and 20 to address Examiner's rejections. Applicant has cancelled claims 2, 3, 6, 11, 12, 15, and 16.

Anticipation

Examiner found that *Wells* "does not disclose an index number associated with a control structure". Applicant has amended all the independent claims, namely Claims 1, 10, 20 to contain a limitation based on an indexing element or a control structure index value. As such, Examiner's rejections under 35 U.S.C. §102(b) are addressed.

Requirements for Prima Facie Obviousness

The obligation of the Examiner to go forward and produce reasoning and evidence in support of obviousness under 35 U.S.C. §103 is clearly defined at M.P.E.P. §2142:

The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness.

M.P.E.P. §2143 sets out the three basic criteria that a patent examiner must satisfy to establish a prima facie case of obviousness necessary for

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establishing a rejection to a claim under 35 U.S.C. §103:

1. some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;

2. a reasonable expectation of success; and

3. the teaching or suggestion of all the claim limitations by the prior art reference (or references when combined).

It follows that in the absence of such a prima facie showing of obviousness under 35 U.S.C. §103 by the examiner (assuming there are no objections or other grounds for rejection), an Applicant is entitled to grant of a patent. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443 (Fed. Cir. 1992).

Thus, in order to support an obviousness rejection under 35 U.S.C. §103, the Examiner is obliged to produce evidence compelling a conclusion that each of the three aforementioned basic criteria has been met.

Wells

Pending Claims 3-7, 12-16 and 20 stand rejected by the Examiner under 35 U.S.C. §103(a) as unpatentable over *Wells*. Examiner contends that the use of a memory devices base address and an offset value to locate a memory location is common practice. Examiner also contends that the use of size and index value to specify a memory block is common practice. Examiner finds that Applicant's systems and methods are obvious in view of *Wells* and common practice.

Applicant, however, teaches concurrently using a base address, size and index value to locate a memory block corresponding to a particular control structure from amongst a number of control structures with all the control structures having the same size. The particular control structure is then mapped into a processor's address space. As such, a particular memory location is

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specified by base address, size, index, and offset.

Neither *Wells* nor "common practice" suggest or motivate using a combination of base address, index, and size to map a block of device memory into a processor's address space. The reason is that *Wells* never mentions it and the common practice is to either use a base address directly or to use size and index to calculate a base address. Applicant's systems and methods are different than common practice in that a plurality of control structures having the same fixed size occupy a memory space and a single control structure is mapped into processor address space. As such, Applicant uses all four elements (base address, index, size, and offset) to perform the mapping.

Common practice teaches two solutions to a single problem. The first solution is to use base address plus offset. The second solution is to use index times size plus offset. There is no teaching suggestion or motivation to concurrently use both solutions to solve that problem. Therefore, using all three elements, base address, index, and size, is not obvious because the first and second legs of the obviousness test fail.

Using all three elements to perform memory mapping can be found obvious only if using all three elements is obvious and using all three elements in systems and methods for memory mapping is obvious. Current art actually teaches away from this because it is a waste of resources to use two different techniques to produce the same result. When given a base address, there is no reason for then calculating the base offset using index times size. At this point in the analysis, legs one and three of the obviousness test are doubly failed.

Finally, using all three elements for memory mapping and then mapping a single control structure into processor memory is even less obvious. Upon considering *Wells*, one practiced in the art has not been taught or motivated to further consider how *Wells* might apply to a plurality of control structures. *Wells* teaches mapping executable code into a virtual memory space, not control structures and how those might be mapped into processor memory. The further

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jump to memory mapping a single control structure is even further from any teaching, suggestion, or motivation that was in the art until Applicant's disclosure.

Conclusion

In view of the foregoing remarks, the Applicant submits that Claims 1, 4, 5, 7-10, 13, 14, 17-20 are patentable and are in allowable form. Accordingly, the Applicant earnestly solicits the favorable consideration of the application, and respectfully request that it be passed to issue in its present condition.

Should the Examiner discern any remaining impediment to the prompt allowance of the aforementioned claims that might be resolved or overcome with the aid of a telephone conference, he is cordially invited to call the undersigned at the telephone number set out below.

Respectfully submitted,



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